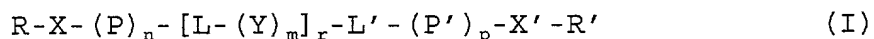


CLAIMS

1. Water-soluble or water-dispersible amphiphilic cationic associative polyurethanes of formula (I):



in which:

R and R', which are identical or different, represent a hydrophobic group or a hydrogen atom;

X and X', which are identical or different, represent a group comprising an amine functional group which may or may not carry a hydrophobic group or the L» group;

L, L' and L», which are identical or different, represent a group derived from a diisocyanate;

P and P', which are identical or different, represent a group comprising an amine functional group which may or may not carry a hydrophobic group;

Y represents a hydrophilic group;

r is an integer between 1 and 100, preferably between 1 and 50 and in particular between 1 and 25,

n, m and p have values, each independently of the others, between 0 and 1000;

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the molecule comprising at least one protonated or quaternized amine functional group and at least one hydrophobic group.

2. Polyurethanes according to Claim 1, characterized in that the only hydrophobic groups are the R and R' groups at the chain ends.
3. Polyurethanes according to either of Claims 1 and 2, characterized in that R and R' both independently represent a hydrophobic group, X and X' each represent an L» group, n and p have values between 1 and 1000 and L, L', L», P, P', Y and m have the meaning indicated in Claim 1.
4. Polyurethanes according to either of Claims 1 and 2, characterized in that R and R' both independently represent a hydrophobic group, X and X' each represent an L» group, n and p have the value 0 and L, L', L», Y and m have the meaning indicated in Claim 1.
5. Polyurethanes according to either of Claims 1 and 2, characterized in that R and R' both independently represent a hydrophobic group, X and X' both independently represent a group comprising a quaternary amine, n and p have the value 0 and L, L', Y and m have the meaning indicated in Claim 1.
6. Polyurethanes according to one of the preceding claims, characterized in that they exhibit a number-average molecular mass of between 400 and 500 000,

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Variable	Mean	SD
Age	45.2	10.5
Gender		
Male	52.3	5.1
Female	47.8	4.9
Marital Status		
Married	68.5	6.2
Single	31.5	3.8
Education		
High School	25.4	2.1
College	45.6	3.5
Postgraduate	29.0	2.8
Income		
Low	15.2	1.8
Medium	42.8	4.5
High	42.0	3.2
Health Status		
Good	78.9	7.1
Fair	18.5	2.5
Poor	2.6	0.8
Stress Level		
Low	12.3	1.5
Medium	45.7	4.2
High	41.9	3.8
Life Satisfaction		
High	55.6	5.3
Low	44.4	4.1
Work Status		
Employed	65.8	6.0
Unemployed	34.2	3.5
Religious Beliefs		
Religious	72.1	7.5
Non-religious	27.9	2.8
Political Views		
Conservative	38.5	4.0
Liberal	61.5	5.2
Environmental Concern		
High	58.9	5.8
Low	41.1	4.5
Travel Habits		
Frequent	48.2	4.8
Infrequent	51.8	5.1
Exercise Frequency		
Regular	35.7	3.8
Irregular	64.3	4.2
Dietary Habits		
Healthy	62.4	6.1
Unhealthy	37.6	3.9
Substance Use		
Alcohol	28.9	3.2
Tobacco	15.6	1.9
Drugs	5.7	0.9
Volunteering		
Yes	45.3	4.7
No	54.7	5.0
Charitable Giving		
Regular	32.1	3.5
Occasional	67.9	4.1
Community Involvement		
Active	48.5	4.9
Passive	51.5	5.2
Neighborhood Satisfaction		
High	52.8	5.4
Low	47.2	4.8
Local Government Trust		
High	40.6	4.3
Low	59.4	5.1
Local Business Support		
Yes	58.3	5.6
No	41.7	4.4
Local Infrastructure Quality		
Good	45.9	4.6
Poor	54.1	5.0
Local Safety Perception		
Safe	60.2	6.3
Unsafe	39.8	4.2
Local Environmental Quality		
High	55.1	5.5
Low	44.9	4.9
Local Cultural Activities		
Frequent	42.7	4.5
Infrequent	57.3	5.1
Local Historical Interest		
High	38.4	3.9
Low	61.6	4.7
Local Artistic Appreciation		
High	47.8	4.8
Low	52.2	5.2
Local Music Interest		
High	43.5	4.6
Low	56.5	5.0
Local Theater Attendance		
Regular	30.2	3.3
Occasional	69.8	4.0
Local Film Festival Interest		
High	41.9	4.4
Low	58.1	4.9
Local Book Club Participation		
Yes	35.6	3.7
No	64.4	4.1
Local Museum Visits		
Frequent	28.7	3.0
Infrequent	71.3	3.5
Local Historical Society Membership		
Yes	22.5	2.4
No	77.5	2.8
Local Garden Club Interest		
High	33.8	3.5
Low	66.2	4.0
Local Bird Watching Interest		
High	25.9	2.7
Low	74.1	3.1
Local Fishing Interest		
High	18.4	1.9
Low	81.6	2.3
Local Hunting Interest		
High	12.7	1.4
Low	87.3	1.8
Local Archery Interest		
High	8.9	1.0
Low	91.1	1.2
Local Golfing Interest		
High	15.3	1.6
Low	84.7	2.0
Local Tennis Interest		
High	20.6	2.1
Low	7	

- | Variable                            | Mean | SD   |
|-------------------------------------|------|------|
| Age                                 | 45.2 | 10.5 |
| Gender                              |      |      |
| Male                                | 52.3 | 5.1  |
| Female                              | 47.8 | 4.9  |
| Marital Status                      |      |      |
| Married                             | 68.5 | 6.2  |
| Single                              | 31.5 | 3.8  |
| Education                           |      |      |
| High School                         | 25.4 | 2.1  |
| College                             | 45.6 | 3.5  |
| Postgraduate                        | 29.0 | 2.8  |
| Income                              |      |      |
| Low                                 | 15.2 | 1.8  |
| Medium                              | 42.8 | 4.5  |
| High                                | 42.0 | 3.2  |
| Health Status                       |      |      |
| Good                                | 78.9 | 7.1  |
| Fair                                | 18.5 | 2.5  |
| Poor                                | 2.6  | 0.8  |
| Stress Level                        |      |      |
| Low                                 | 12.3 | 1.5  |
| Medium                              | 45.7 | 4.2  |
| High                                | 41.9 | 3.8  |
| Life Satisfaction                   |      |      |
| High                                | 55.6 | 5.3  |
| Low                                 | 44.4 | 4.1  |
| Work Status                         |      |      |
| Employed                            | 65.8 | 6.0  |
| Unemployed                          | 34.2 | 3.5  |
| Religious Beliefs                   |      |      |
| Religious                           | 72.1 | 7.5  |
| Non-religious                       | 27.9 | 2.8  |
| Political Views                     |      |      |
| Conservative                        | 38.5 | 4.0  |
| Liberal                             | 61.5 | 5.2  |
| Environmental Concern               |      |      |
| High                                | 58.9 | 5.8  |
| Low                                 | 41.1 | 4.5  |
| Travel Habits                       |      |      |
| Frequent                            | 48.2 | 4.8  |
| Infrequent                          | 51.8 | 5.1  |
| Exercise Frequency                  |      |      |
| Regular                             | 35.7 | 3.8  |
| Irregular                           | 64.3 | 4.2  |
| Dietary Habits                      |      |      |
| Healthy                             | 62.4 | 6.1  |
| Unhealthy                           | 37.6 | 3.9  |
| Substance Use                       |      |      |
| Alcohol                             | 28.9 | 3.2  |
| Tobacco                             | 15.6 | 1.9  |
| Drugs                               | 5.7  | 0.9  |
| Volunteering                        |      |      |
| Yes                                 | 45.3 | 4.7  |
| No                                  | 54.7 | 5.0  |
| Charitable Giving                   |      |      |
| Regular                             | 32.1 | 3.5  |
| Occasional                          | 67.9 | 4.1  |
| Community Involvement               |      |      |
| Active                              | 48.5 | 4.9  |
| Passive                             | 51.5 | 5.2  |
| Neighborhood Satisfaction           |      |      |
| High                                | 52.8 | 5.4  |
| Low                                 | 47.2 | 4.8  |
| Local Government Trust              |      |      |
| High                                | 40.6 | 4.3  |
| Low                                 | 59.4 | 5.1  |
| Local Business Support              |      |      |
| Yes                                 | 58.3 | 5.6  |
| No                                  | 41.7 | 4.4  |
| Local Infrastructure Quality        |      |      |
| Good                                | 45.9 | 4.6  |
| Poor                                | 54.1 | 5.0  |
| Local Safety Perception             |      |      |
| Safe                                | 60.2 | 6.3  |
| Unsafe                              | 39.8 | 4.2  |
| Local Environmental Quality         |      |      |
| High                                | 55.1 | 5.5  |
| Low                                 | 44.9 | 4.9  |
| Local Cultural Activities           |      |      |
| Frequent                            | 42.7 | 4.5  |
| Infrequent                          | 57.3 | 5.1  |
| Local Historical Interest           |      |      |
| High                                | 38.4 | 3.9  |
| Low                                 | 61.6 | 4.7  |
| Local Artistic Appreciation         |      |      |
| High                                | 47.8 | 4.8  |
| Low                                 | 52.2 | 5.2  |
| Local Music Interest                |      |      |
| High                                | 43.5 | 4.6  |
| Low                                 | 56.5 | 5.0  |
| Local Theater Attendance            |      |      |
| Regular                             | 30.2 | 3.3  |
| Occasional                          | 69.8 | 4.0  |
| Local Film Festival Interest        |      |      |
| High                                | 41.9 | 4.4  |
| Low                                 | 58.1 | 4.9  |
| Local Book Club Participation       |      |      |
| Yes                                 | 35.6 | 3.7  |
| No                                  | 64.4 | 4.1  |
| Local Museum Visits                 |      |      |
| Frequent                            | 28.7 | 3.0  |
| Infrequent                          | 71.3 | 3.5  |
| Local Historical Society Membership |      |      |
| Yes                                 | 22.5 | 2.4  |
| No                                  | 77.5 | 2.8  |
| Local Garden Club Interest          |      |      |
| High                                | 33.8 | 3.5  |
| Low                                 | 66.2 | 4.0  |
| Local Birdwatching Interest         |      |      |
| High                                | 25.9 | 2.7  |
| Low                                 | 74.1 | 3.1  |
| Local Fishing Interest              |      |      |
| High                                | 18.4 | 1.9  |
| Low                                 | 81.6 | 2.3  |
| Local Hunting Interest              |      |      |
| High                                | 12.7 | 1.4  |
| Low                                 | 87.3 | 1.8  |
| Local Archery Interest              |      |      |
| High                                | 8.9  | 1.0  |
| Low                                 | 91.1 | 1.2  |
| Local Golfing Interest              |      |      |
| High                                | 15.3 | 1.6  |
| Low                                 | 84.7 | 2.0  |
| Local Tennis Interest               |      |      |
| High                                | 20.6 | 2.1  |
| Low                                 |      |      |



Variable	Mean	SD
Age	45.2	10.5
Gender		
Male	52.1	49.8
Female	47.9	50.2
Marital Status		
Married	58.3	55.1
Single	41.7	48.9
Divorced	3.2	5.5
Widowed	1.8	4.2
Education		
High School	25.4	28.7
College	35.6	32.1
Postgraduate	39.0	35.8
Income		
Low	15.2	18.5
Medium	45.8	42.3
High	39.0	38.7
Occupation		
Managerial	28.5	31.2
Professional	32.1	34.5
Service	39.4	36.8
Unemployed	1.0	3.2
Health Status		
Good	55.3	52.1
Fair	38.7	35.4
Poor	6.0	8.5
Smoking Status		
Smoker	22.1	25.3
Nonsmoker	77.9	74.7
Alcohol Consumption		
Regular	12.5	15.8
Occasional	35.2	38.1
Never	52.3	46.1
Exercise Frequency		
Daily	18.7	21.4
Weekly	32.4	35.2
Monthly	25.1	28.9
Never	23.8	26.5
Stress Level		
Low	15.3	18.7
Medium	42.1	45.6
High	42.6	40.7

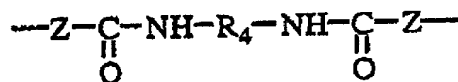
Variable	Mean	SD
Age	45.2	10.5
Gender		
Male	52.3	5.1
Female	47.8	4.9
Marital Status		
Married	68.5	6.2
Single	31.5	3.8
Education		
High School	25.4	2.1
College	45.6	3.5
Postgraduate	29.0	2.8
Income		
Low	15.2	1.8
Medium	42.8	4.5
High	42.0	3.2
Health Status		
Good	78.9	7.1
Fair	18.5	2.5
Poor	2.6	0.8
Stress Level		
Low	12.3	1.5
Medium	45.7	4.2
High	41.9	3.8
Life Satisfaction		
High	55.6	5.3
Low	44.4	4.1
Work Status		
Employed	65.8	6.0
Unemployed	34.2	3.5
Religious Beliefs		
Religious	72.1	7.5
Non-religious	27.9	2.8
Political Views		
Conservative	38.5	4.0
Liberal	61.5	5.2
Environmental Concern		
High	58.9	5.8
Low	41.1	4.5
Travel Habits		
Frequent	48.2	4.8
Infrequent	51.8	5.1
Exercise Frequency		
Regular	35.7	3.8
Irregular	64.3	4.2
Dietary Habits		
Healthy	62.4	6.1
Unhealthy	37.6	3.9
Substance Use		
Alcohol	28.9	3.2
Tobacco	15.6	1.9
Drugs	5.7	0.9
Volunteering		
Yes	45.3	4.7
No	54.7	5.0
Charitable Giving		
Regular	32.1	3.5
Occasional	67.9	4.1
Community Involvement		
Active	48.5	4.9
Passive	51.5	5.2
Neighborhood Satisfaction		
High	52.8	5.4
Low	47.2	4.8
Local Government Trust		
High	40.6	4.3
Low	59.4	5.1
Local Business Support		
Yes	58.3	5.6
No	41.7	4.4
Local Infrastructure Quality		
Good	45.9	4.6
Poor	54.1	5.0
Local Safety Perception		
Safe	60.2	6.3
Unsafe	39.8	4.2
Local Environmental Quality		
High	55.1	5.5
Low	44.9	4.9
Local Cultural Activities		
Frequent	42.7	4.5
Infrequent	57.3	5.1
Local Historical Interest		
High	38.4	3.9
Low	61.6	4.7
Local Artistic Appreciation		
High	47.8	4.8
Low	52.2	5.2
Local Music Interest		
High	43.5	4.6
Low	56.5	5.0
Local Theater Attendance		
Regular	30.2	3.3
Occasional	69.8	4.0
Local Film Festival Interest		
High	41.9	4.4
Low	58.1	4.9
Local Book Club Participation		
Yes	35.6	3.7
No	64.4	4.1
Local Museum Visits		
Frequent	28.7	3.0
Infrequent	71.3	3.5
Local Historical Society Membership		
Yes	22.5	2.4
No	77.5	2.8
Local Garden Club Interest		
High	33.8	3.5
Low	66.2	4.0
Local Birdwatching Interest		
High	25.9	2.7
Low	74.1	3.1
Local Fishing Interest		
High	18.4	1.9
Low	81.6	2.3
Local Hunting Interest		
High	12.7	1.4
Low	87.3	1.8
Local Archery Interest		
High	8.9	1.1
Low	91.1	1.5
Local Golfing Interest		
High	15.3	1.6
Low	84.7	2.0
Local Tennis Interest		
High	20.6	2.1
Low		

from N, S, O or P;

R<sub>1</sub> and R<sub>3</sub>, which are identical or different, denote a linear or branched C<sub>1</sub>-C<sub>30</sub> alkyl or alkenyl radical or an aryl radical, it being possible for at least one of the carbon atoms to be replaced by a heteroatom chosen from N, S, O or P;

A<sup>-</sup> is a physiologically acceptable counterion.

9. Polyurethanes according to any one of the preceding claims, characterized in that the L, L' and L» groups, which are identical or different, represent the formula:



in which:

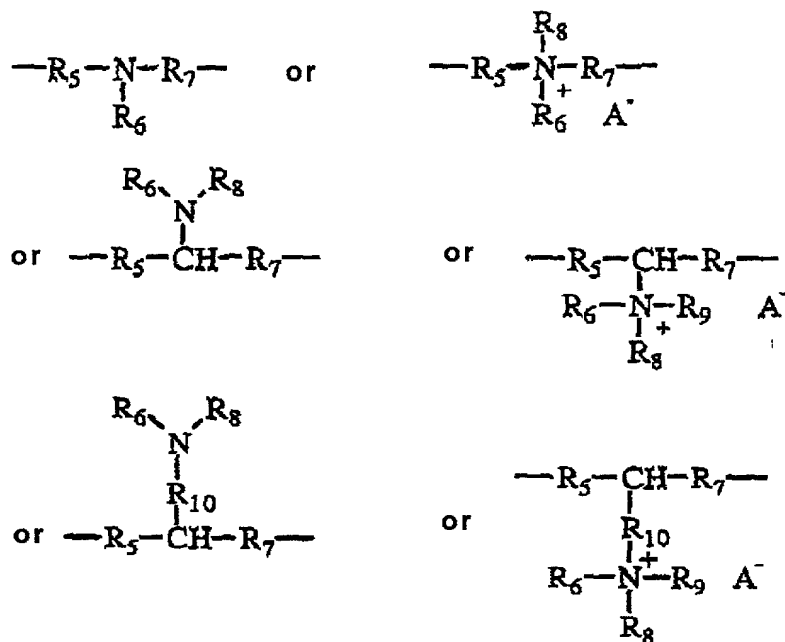
Z represents -O-, -S- or -NH-; and

R<sub>4</sub> represents a linear or branched alkylene radical having from 1 to 20 carbon atoms, which may or may not comprise a saturated or unsaturated ring, or an arylene radical, it being possible for one or more of the carbon atoms to be replaced by a heteroatom chosen from N, S, O and P.

10. Polyurethanes according to any one of the preceding claims, characterized in that the P and P' groups,

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which are identical or different, represent at least one of the following formulae:



in which:

R<sub>5</sub> and R<sub>7</sub> have the same meanings as R<sub>2</sub> defined in Claim 7;

R<sub>6</sub>, R<sub>8</sub> and R<sub>9</sub> have the same meanings as R<sub>1</sub> and R<sub>3</sub> defined in Claim 7;

R<sub>10</sub> represents a linear or branched alkylene group which is optionally unsaturated and which can comprise one or more heteroatoms chosen from N, O, S and P, and

A<sup>-</sup> is a physiologically acceptable counterion.

11. Polyurethanes according to any one of the preceding claims, characterized in that Y represents a group

derived from ethylene glycol, from diethylene glycol or from propylene glycol or a group derived from a polymer chosen from polyethers, sulphonated polyesters and sulphonated polyamides.

12. Use of a polyurethane as defined in any one of the preceding claims as thickener or gelling agent in a composition for topical application with a cosmetic use.
13. Cosmetic composition comprising, in a cosmetically acceptable medium, at least one polyurethane as defined in any one of Claims 1 to 11.

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